

REMARKS

Claims 1, 2, 5, 6 and 9 to 36 are pending in the application. Claims 1, 10, 22, and 33 are independent. Favorable reconsideration and further examination are respectfully requested.

Claims 1, 2, 4 and 7 to 10 were rejected under the second paragraph of 35 U.S.C. §112 for the reasons noted on page 2 of the Office Action. The claims have been amended to address §112 concerns. Accordingly, withdrawal of the §112 rejection is respectfully requested.

Next, Applicants thank the Examiner for the indication that claim 8 contains allowable subject matter. The subject matter of claim 8 has been substantially incorporated into claim 1. Applicants believe that claim 1 is now patentable, as described below.

The Office Action further indicates that incorporation by reference of the Japanese priority documents for this application is improper. Applicants respectfully disagree and note that the rule cited in the Office Action pertains only to claimed "essential material" disclosed from documents incorporated by reference but not disclosed in the application itself, not to incorporation by reference in general. The rule is set forth in MPEP §608.01(p), to which the Examiner is respectfully directed.

Claims 1, 2, 3 and 10 were rejected under §103 over U.S. Patent No. 5,589,247 (Wallack); claims 1, 3, 4 and 10 were rejected under §102(b) over U.S. Patent No. 5,462,823 (Evans); and claims 2, 5, 6 and 9 were rejected under §103 over Evans. As shown above, Applicants have amended the claims to define the invention with greater clarity. In view of these clarifications, reconsideration and withdrawal of the art rejections are respectfully requested.

Amended independent claim 1 defines a magnetic tape which includes a substrate having on one side thereof a magnetic layer serving as a recording surface and on the other side thereof a resin layer serving as a non-magnetic recording surface. The magnetic tape also includes a layer of a metal or alloy which is located between the substrate and said resin layer. The magnetic tape has a first region on the side of the non-magnetic recording surface along a longitudinal direction of the tape. The first region has a regular pattern for servo tracking. The first region has different optical properties from a second region on the side of the non-magnetic recording surface. The regular pattern for servo tracking includes depressions in the layer of metal or alloy.

The applied art is not understood to disclose or to suggest the foregoing features of claim 1, particularly with respect to a metal or alloy layer having depressions that constitute a regular pattern for servo tracking. These features were present in originally-filed claim 8, which was indicated on page 5 of the Office Action as containing allowable subject matter.

The applied Evans patent describes forming a photosensitive layer on one or both sides of a magnetic tape. The Evans patent mentions using metal as a substrate for the magnetic tape (see, e.g., column 11, lines 44 and 45 and column 12, lines 19 to 33). However, nowhere does Evans describe using a metal or alloy layer in addition to a substrate, much less including depressions on the metal or alloy layer that constitute a regular pattern for servo tracking.

Wallack describes adding backcoatings to a magnetic tape in order to provide better surface tension control on the magnetic tape. The backcoatings do contain depressions or protrusions. However, the backcoatings are not metal or alloy and the depressions or protrusions are not related to servo tracking as is the case in claim 1.

For at least the foregoing reasons, Evans and Wallack are not understood to disclose or suggest claim 1's metal or alloy layer having depressions that constitute a regular pattern for servo tracking. Claim 1 is therefore believed to be patentable.

Amended independent claim 10 defines a magnetic tape which includes a substrate having on one side thereof a magnetic layer serving as a recording surface and on the other side thereof a resin layer serving as a non-magnetic recording surface. The magnetic tape includes a layer of a metal or alloy which is located between the substrate and the resin layer and which is not part of the magnetic layer. The magnetic tape has a regular pattern for servo tracking on the side of the non-magnetic recording surface along a longitudinal direction of the tape. The regular pattern has different optical properties from other regions of the side of the non-magnetic recording surface. The different optical properties result, at least in part, from the layer of metal or alloy.

As explained above with respect to claim 1, Evans and Wallack do not disclose or suggest at least a metal or alloy layer in relation to a regular pattern for servo tracking. Accordingly, claim 10 is believed to be patentable.

Applicants also present for examination new claims 11 to 36.

New independent claim 22 defines a magnetic tape which includes a substrate, a magnetic layer on a first side of the substrate, the magnetic layer comprising a recording surface for recording information, and a metallic layer on a second side of the substrate. The metallic layer is used in producing a servo pattern on a non-magnetic recording surface of the magnetic tape.

The Evans and Wallack patents are not understood to disclose or to suggest the foregoing features of claim 22, particularly with respect to a metallic layer used in producing a servo pattern on a non-magnetic recording surface of magnetic tape. Accordingly, claim 22 is believed to be patentable over the art.

New independent claim 33 defines a magnetic tape having a recording side and a non-magnetic recording side. The magnetic tape includes a magnetic layer on the recording side of the magnetic tape and a metallic layer on the non-magnetic recording side of the magnetic tape. The metallic layer has depressions formed thereon, the depressions comprising a servo pattern.

The Evans and Wallack patents are not understood to disclose or to suggest the foregoing features of claim 33, particularly with respect to a metallic layer having depressions formed thereon that comprise a servo pattern. Accordingly, claim 33 is believed to be patentable.

In view of the foregoing amendments and remarks, the entire application is believed to be in condition for allowance. Such action is requested at the Examiner's earliest convenience.

Please apply any fees due for this Amendment to deposit account no. 06-1050 referencing the above attorney docket number.


Applicants : Akira Ishikawa, et al.
Serial No. : 09/975,343
Filed : October.11, 2001
Page : 12

Attorney's Docket No.:
06837-123002/Q00-1132-US2

Applicants' undersigned attorney can be reached at the address shown below. All
correspondence should be directed to Peter J. Devlin, not to Sean P. Daley or to the undersigned,
at the address shown below.

Respectfully submitted,

Date: August 22, 2002


Paul A. Pysher
Reg. No. 40,780

Fish & Richardson P.C.
225 Franklin Street
Boston, Massachusetts 02110-2804
Telephone: (617) 542-5070
Facsimile: (617) 542-8906

VERSION WITH MARKINGS TO SHOW CHANGES MADE

--1. (Amended) A magnetic tape comprising:

a substrate having on one side thereof a magnetic layer serving as a recording surface and on the other side thereof a resin layer serving as a non-magnetic recording surface[,]; and
a layer of a metal or alloy which is located between the substrate and the resin layer;
wherein said magnetic tape has a first region on the side of the non-magnetic recording surface along a [the] longitudinal direction of the tape, the first region having [in which] a regular pattern for servo tracking, the first region having different optical properties from a second [the other major] region on [of] the side of the non-magnetic recording surface [is to be formed], [and said magnetic tape has a thickness of 7 μ m or less] and the regular pattern for servo tracking comprising depressions in the layer of metal or alloy.

2. (Amended) The magnetic tape according to claim 1, wherein said optical properties comprise [are] a reflectance or a transmission of light, and the difference between the first region [said regular pattern] and the second [other major] region of the non-magnetic recording surface in reflectance or transmission of light [having a prescribed wavelength used for servo tracking] is 10% or more.

5. (Amended) The magnetic tape according to claim 1, wherein said magnetic tape has a coefficient of dynamic friction of 0.15 to 0.35 on the non-magnetic recording surface [thereof].

6. (Amended) The magnetic tape according to claim 1 [3], [wherein said magnetic tape] further comprising [comprises] a backcoating layer serving as an outermost layer that contains a binder and inorganic powder and is located on said layer of metal or alloy [containing a coloring matter].

9. (Amended) The magnetic tape according to claim 1 [8], wherein said servo tracking pattern has a width of 0.1 to 30 μ m and a depth of from 1/3 of the thickness of said [thin] layer of metal or alloy up to the whole thickness of said [thin] layer of metal or alloy.

10. (Amended) A magnetic tape comprising:
a substrate having on one side thereof a magnetic layer serving as a recording surface and on the other side thereof a resin layer serving as a non-magnetic recording surface[,]; and
a layer of a metal or alloy which is located between said substrate and said resin layer
and which is not part of the magnetic layer;

wherein said magnetic tape has a regular pattern for servo tracking on the side of the non-magnetic recording surface along a [the] longitudinal direction of the tape, the regular pattern having [which has] different optical properties from [the] other regions [major region] of the side of the non-magnetic recording surface, the different optical properties resulting, at least in part,
from the layer of metal or alloy [, and said magnetic tape has a thickness of 7 μ m or less].--